ABSTRACT OF THE INVENTION

Disclosed are a framework for managing an application's relationship to its run-time environment and an engine that accepts the framework as input and runs the application within the environment. Aspects of the framework and engine may be changed to suit a changing environment without changing the application itself. By managing details of the environment, the invention leaves developers free to focus on the specific tasks of the application. The framework also allows the engine to provide standardized services such as deadlock and leak detection, progress monitoring, and results logging. As an example, the application may be a software test suite. The invention allows the test suite to be run single- or multi-threaded and with individual tests within the suite running consecutively or concurrently. The invention can be parameterized to accommodate different testing goals, such as basic variation testing, regression testing, and stress testing, without changing the test suite itself.